

REMARKS

With entry of the foregoing amendments claims 1-43 are now pending in this application. Claims 1-18 and 27-43 were allowed. Claims 19-26 were rejected. Claims 19 and 22 are now amended. No new matter is introduced. Reconsideration is respectfully requested.

Allowable Subject Matter

The Applicants thank the Examiner for allowing claims 1-18 and 27-43.

Claim Formalities

Claims 22 has been amended to provide proper antecedent basis.

Claim Rejections-35 U.S.C. §102

The Examiner rejected claims 19-22 and 25 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 5,828,662 to Jalali et al (“Jalali”). We respectfully disagree.

According to one aspect of the invention, a coded channel of the wireless communication system is allocated to support synchronized communications from each of multiple transmitters and a receiver. A first portion of the coded channel is assigned for use by a first transmitter to transmit a reference signal to the receiver, while a second portion of the channel is assigned for use by a second transmitter to transmit a message to the receiver. Preferably, the coded channel is divided into time slots and each transmitter transmits in the appropriate time slot to the receiver.

Thus, according to this method, multiple transmitters can transmit different types of information to the receiver over the coded channel. For example, in Fig. 2 of the present application, a first portion of the heartbeat standby channel 55HS (i.e. timeslots S₁ through S₄₈) can carry timing signals from subscriber units in standby mode, while a second portion of the channel (i.e. timeslots LQM₁ through LQM₁₆) can carry feedback messages from active subscriber units indicating a reverse link quality of transmission between the receiver and corresponding transmitter. (See Fig. 2 and Specification, page 12, line 11 through page 13, line 7 and page 25, line 17 through page 26, line 25).

Claim 19 as originally filed recites this features in the steps for “assigning a first portion of the coded channel for use by a first transmitter to transmit a reference signal to the receiver; and assigning a second portion of the channel for use by a second transmitter to transmit a message to the receiver.” (Emphasis added) In other words, multiple transmitters can transmit different types of information to the receiver over the coded channel.

To further clarify this feature, claim 19 as now amended further recites “the first portion and the second portion of the coded channel transmitting different types of information between the multiple transmitters and the receiver.” Support for this amendment can be found at least in Fig. 2 and Specification, page 12, line 11 through page 13, line 7 and page 25, line 17 through page 26, line 25. Jalali does not teach or suggest these features.

In contrast, Jalali discloses a medium access control scheme for data transmissions within CDMA systems. Referring to Fig. 4, Jalali discloses a reverse link that includes a particular channel 401, referred to as the synchronous synchronization reservation (SSR) channel. Specifically, the SSR channel includes assignable timeslots 4c for carrying synchronization messages from individual subscriber units. Each time-slotted synchronization message that is received by a base station is used to synchronize with an individual subscriber unit prior to traffic channel assignment for that unit. Jalali does not teach or suggest that the SSR channel can carry different types of information other than synchronization messages over the coded channel.

For at least these reasons, claim 19 is novel and non-obvious over the prior art of record and thus is patentable.

Furthermore, by virtue of at least their dependency to claim 19, claims 20-26 are also believed to be patentable.

Claim Rejections-35 U.S.C. §103

The Examiner rejected claims 23-24 and 26 as being unpatentable over Jalai in view of U.S. Patent 5,745,484 to Scott. As previously discussed, Jalai discloses a time-slotted, reverse link channel that carries synchronization messages from individual subscriber units to a base station. However, Jalali does not teach or suggest a coded channel having a first portion and a second portion that transmits different types of information between multiple transmitters and a receiver. Scott also does not teach or suggest this feature.

Rather, Scott discloses a system for time division multiplexed communication over a single frequency band in which guard time overhead is reduced by active adjustment of reverse link transmission timing as a function of round trip propagation time. In Scott, a base station transmits issues consecutive base transmissions directed to each of the communicating user stations and then awaits a response from the first user station after a single collective guard time. The user stations then respond, one by one, in allocated time slots on the same frequency as the base station, with only minimal guard times between each reception. In order to prevent interference among the user transmissions, the base station commands the user stations to advance or retard their transmission timing. (See Scott, Abstract; col. 4, lns. 28-42)

Scott does not teach or suggest the use of a coded channel for synchronized communications from multiple transmitters to a receiver such that a first portion and a second portion of the coded channel transmit different types of information between the multiple transmitters and the receiver as now recited in claim 19. For example, in Fig. 2 of the present application, a first portion of the heartbeat standby channel 55HS (i.e. timeslots S₁ through S₄₈) can carry timing signals from subscriber units in standby mode, while a second portion of the channel (i.e. timeslots LQM₁ through LQM₁₆) can carry feedback messages from active subscriber units indicating a reverse link quality of transmission between the receiver and corresponding transmitter. (See specification, page 12, line 22 through page 13, line 7). Scott does not teach such a feature.

For at least these reasons, claim 19 is also novel and non-obvious in view of Scott and thus is patentable.

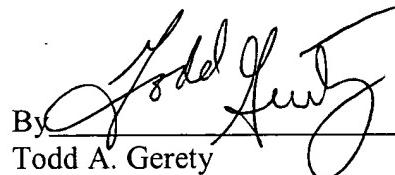
Furthermore, by virtue of at least their dependency to claim 19, claims 23-24 and 26 are also believed to be patentable.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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Dated: 10/13/04